



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,918	03/15/2004	Kyoung-ho Kang	Q78832	6839
23373	7590	12/13/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			TWEEL JR, JOHN ALEXANDER	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/799,918	Applicant(s) KANG ET AL.	
	Examiner John A. Tweel, Jr.	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/6 &amp; 11/29/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - Paragraph 11, Line 3: There appears to be an extra word "each" in the line.
  - Paragraph 11, Line 3: The word "device" should be plural.
  - Paragraph 25, Line 1: The word "chart" should be plural.
  - Paragraph 36, Line 6: The acceleration sensor should be labeled No. 220.
  - Paragraph 39, Line 3: The MCU should be labeled No. 240.
  - Paragraph 44, Line 11: An article --a-- should be before the word "plurality".
  - Paragraph 46, Line 1: An article --a-- should be before the word "controlled".
  - Paragraph 47, Line 1: An article --a-- should be before the word "plurality".

Appropriate correction is required.

### ***Claim Objections***

2. Claims 11 and 13 are objected to because of the following informalities: Claim 11 contains a misspelling of the word --least--. Claim 13 is missing a period at the end of the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

Art Unit: 2636

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-11 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by **Vardi** [U.S. 6,831,632].

For claim 1, the apparatus taught by **Vardi** includes the following claimed subject matter, as noted, 1) the claimed motion detection unit is met by the acceleration sensors (Nos. 500, 502, 504) to detect at least one motion of a body, 2) the claimed data storage unit is met by the application output and memory (No. 548) as well as the dictionary (No. 556) adapted to store command codes for a controlled device and information on the specific motion such as a PDA, 3) the claimed transmission unit is met by the communication and I/O unit (No. 546) to transmit data wirelessly or wired to the controlled device, and 4) the claimed control unit is met by the controller (No. 530) adapted to obtain information from the motion detection unit and controls the transmission unit so that if the motion corresponds to at least one specific motion, a command code is output to the device.

For claims 2 and 3, the various embodiments seen in Figures 1-4 are pen and bar shaped.

For claim 4, there are three acceleration sensors (X, Y, Z) adapted to output electric signals based on accelerations of motion of the body.

For claim 5, the apparatus also includes a velocity processing unit (No. 538) to produce a velocity indicating output.

For claim 6, the **Vardi** reference is operable to perform several different functions, such as calculator, PDA, remote control, and telephone.

For claim 7, the specific application the apparatus is used for is chosen using velocities and movements corresponding to the application itself (Fig. 6E).

For claim 8, the Vardi reference uses character recognition output indication.

For claim 9, the depicted embodiments all include display devices.

For claim 10, the display of Vardi is able to display characters and numbers based on signals from the accelerometers.

For claim 11, the display device of Vardi is described as an LCD device.

For claim 14, the method taught by **Vardi** includes the following claimed steps, as noted, 1) the claimed detecting at least one motion information is achieved using the acceleration sensors (Nos. 500, 502, 504) from motions of the body, 2) the claimed searching whether command codes exist is performed using the controller (No. 530) working in conjunction with the application processing (No. 558) and dictionary (No. 556) for finding command codes for controlling the device, and 3) the claimed transmitting the command codes is achieved using the communication and I/O unit (No. 546) for transmitting the codes to the device, such as the PDA, if the codes exist for the motion information.

For claim 15, the device of **Vardi** controls a plurality of devices based on the motion detected by the body.

For claim 16, the specific application the apparatus is used for is chosen using velocities and movements corresponding to the application itself (Fig. 6E).

For claim 17, the method of Vardi can also display operation state using the display (No. 550).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vardi** in view of **Williams** [U.S. 6,956,564].

For claim 12, the apparatus of **Vardi** includes the claimed subject matter as discussed in the rejection of claim 1 above. However, there is no mention of at least one input for inputting extra commands.

Extra input methods are not new in remote control or portable computers. The portable computer taught by Williams includes a keypad (Nos. 33, 6-13) that enable one to record a voice message in the system if one wishes. This is plain evidence that extra inputs have been used on portable computers for some time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a

Art Unit: 2636

keypad into the system of Vardi for the purpose of enabling the user to perform useful tasks such as voice recording.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vardi** in view of **Schiller et al** [U.S. 6,577,299].

For claim 13, the apparatus of **Vardi** includes the claimed subject matter as discussed in the rejection of claim 1 above. However, there is no mention of a gyro sensor.

Gyro sensors have been used in portable pen apparatus for some time. The electronic pen apparatus taught by Schiller uses gyro sensors to recognize movement in three dimensions, similar to the three dimensions of the primary reference. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include gyro sensors in the system of Vardi for the purpose of using a common and well known movement sensor.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Lee et al** [U.S. 5,545,857] includes a remote control method with several functions.

**Banerjee et al** [U.S. 6,292,181] receives input from a remote hand-held stylus.

**Challa et al** [U.S. 6,396,481] combines an image capture device with an ink capture device.

Art Unit: 2636

**Jensen** [U.S. 6,498,604] uses a computer mouse with the shape of a ballpoint pen.

**Cho et al** [U.S. 6,897,854] includes an optical 3-D detecting device.


**Fleming** [U.S. 6,933,933] has an ink cartridge including an acceleration signal.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Tweel, Jr. whose telephone number is 571 272 2969. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 571 272 2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAT  
12/11/05



JOHN TWEEL  
PRIMARY EXAMINER